

Cloud computing

It's a journey

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“Computing may someday be organized as a public utility” - John McCarthy, MIT Centennial in 1961



Mobility + Internet



Agility



CAPEX → OPEX

By 2013,

22%

of Federal Agencies
are estimated to have
implemented Cloud



What

is cloud computing?

“Cloud computing is a style of computing where scalable and elastic IT-enabled capabilities are delivered as a service to external customers using Internet technologies”

OR

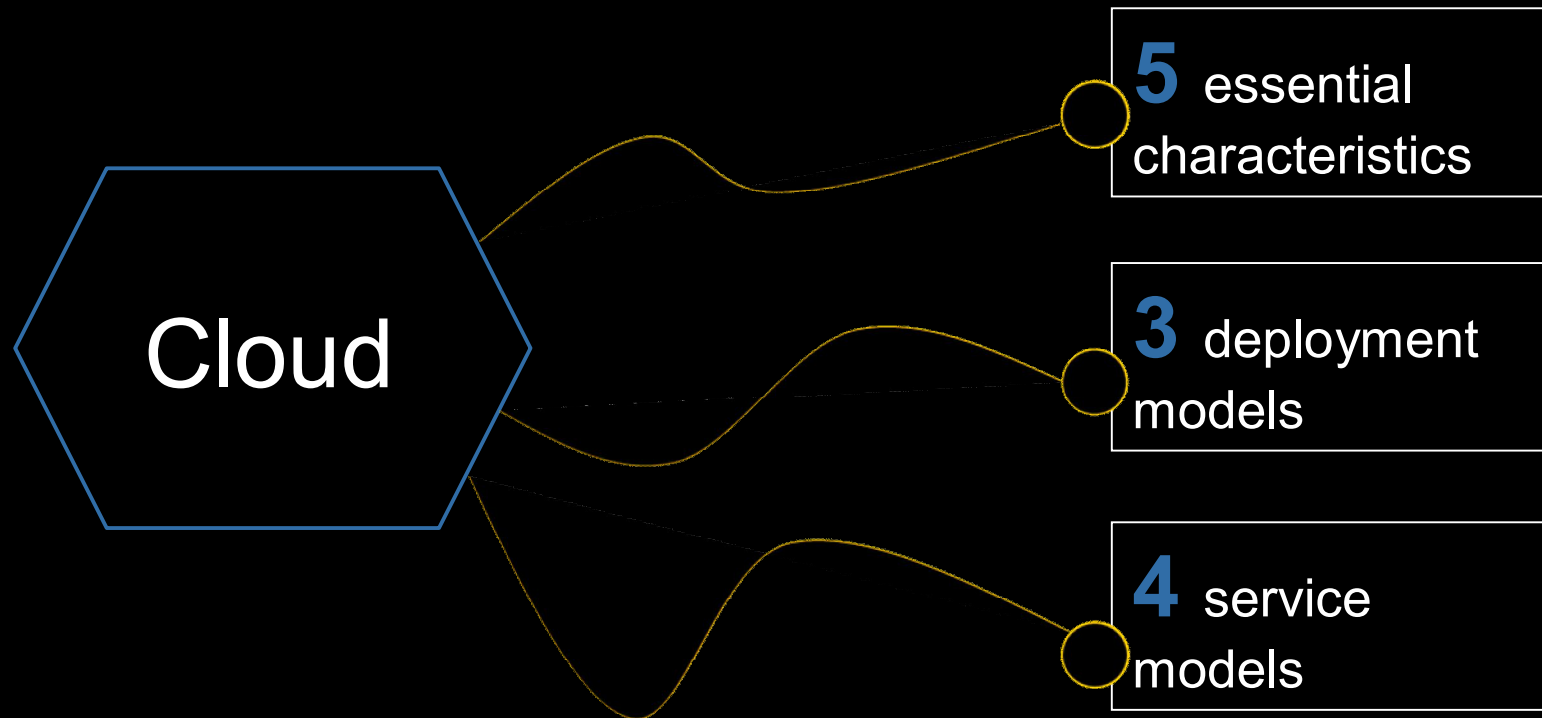
Source: Gartner, Inc. “Cloud Computing Key Initiative Overview” by David Cearley, February 5, 2010

“Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.”

Source: NIST “NIST Cloud Definition by Peter Mell & Tim Grance, July 10, 2010



the **Cloud** is
composed of

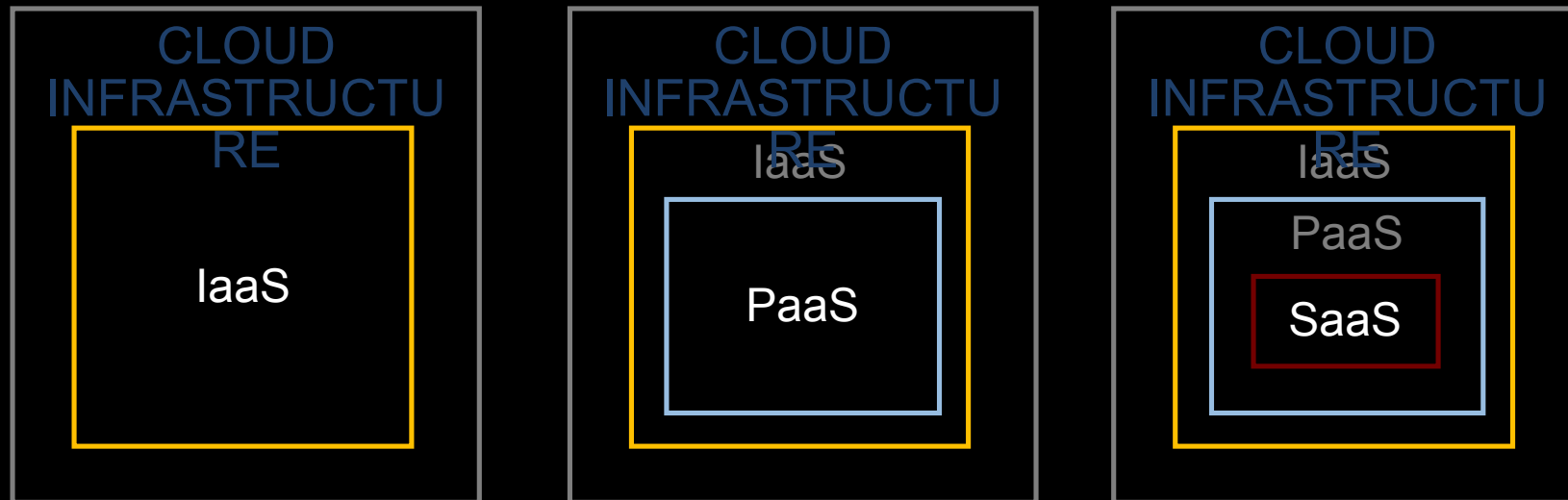


Essential characteristics

- ✓ Service based
- ✓ Massively scalable and elastic
- ✓ Shared
- ✓ Consumption based billing
- ✓ Delivered via Internet technologies

Deployment models

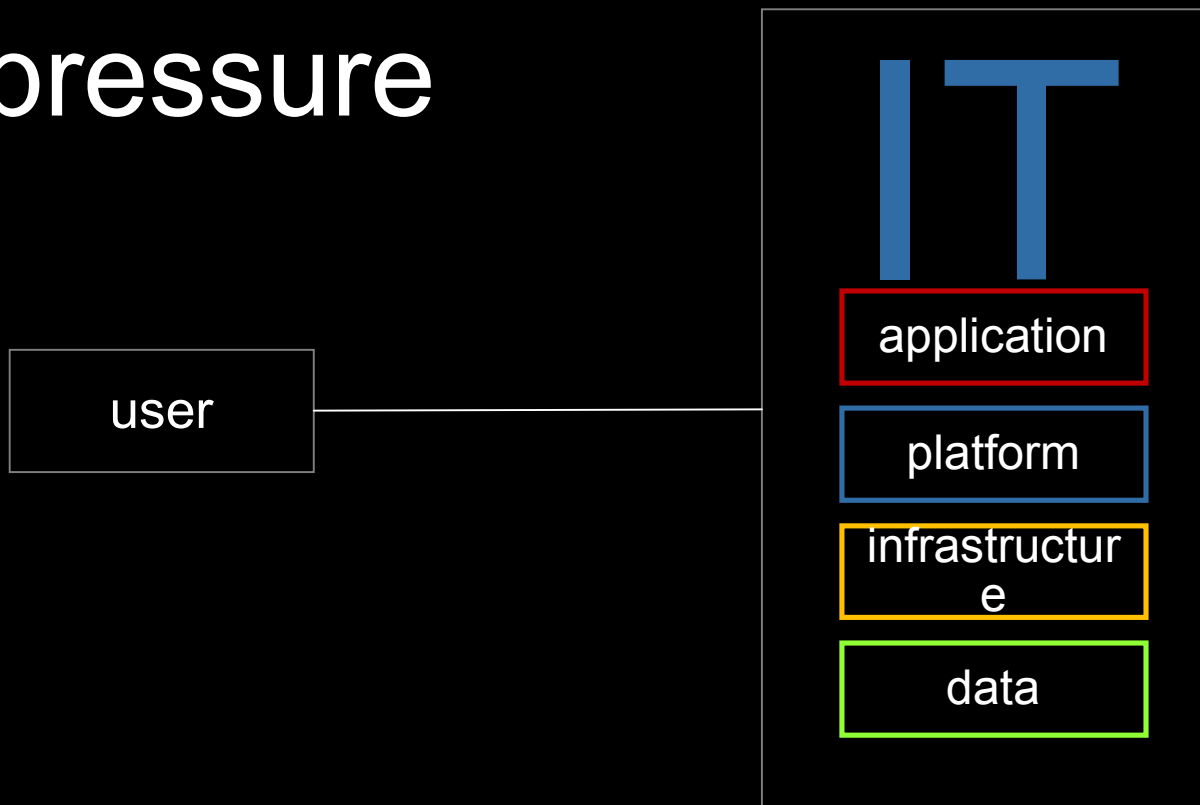
- ✓ Infrastructure as a Service (IaaS)
- ✓ Platform as a Service (PaaS)
- ✓ Software as a Service (SaaS)



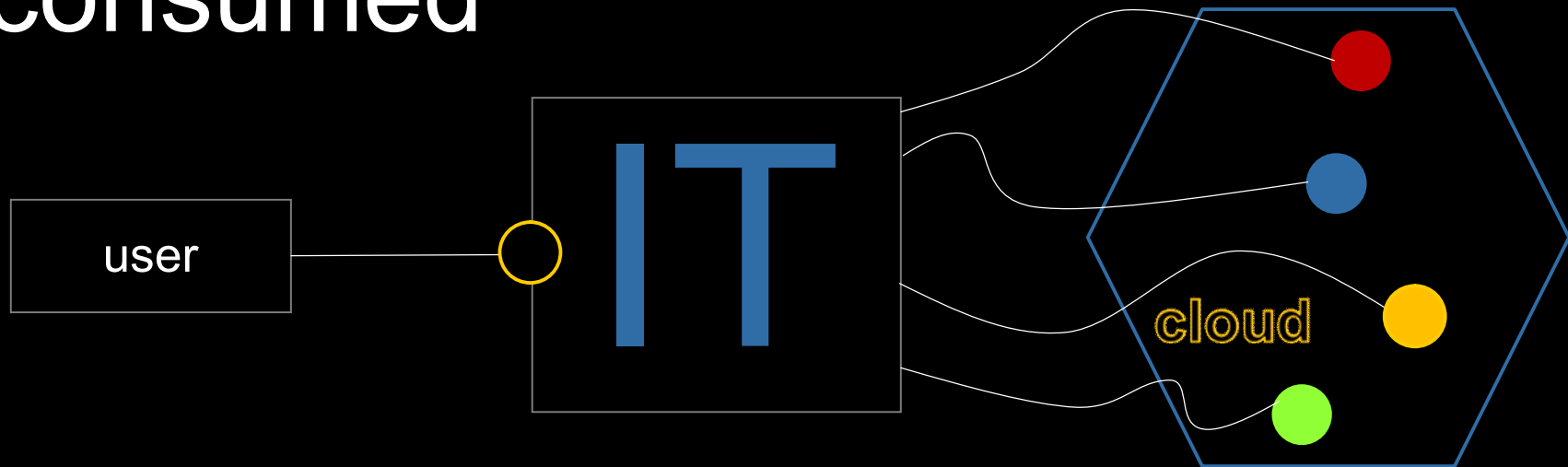
Service models

- ✓ Private cloud
- ✓ Community cloud
- ✓ Public cloud
- ✓ Hybrid cloud

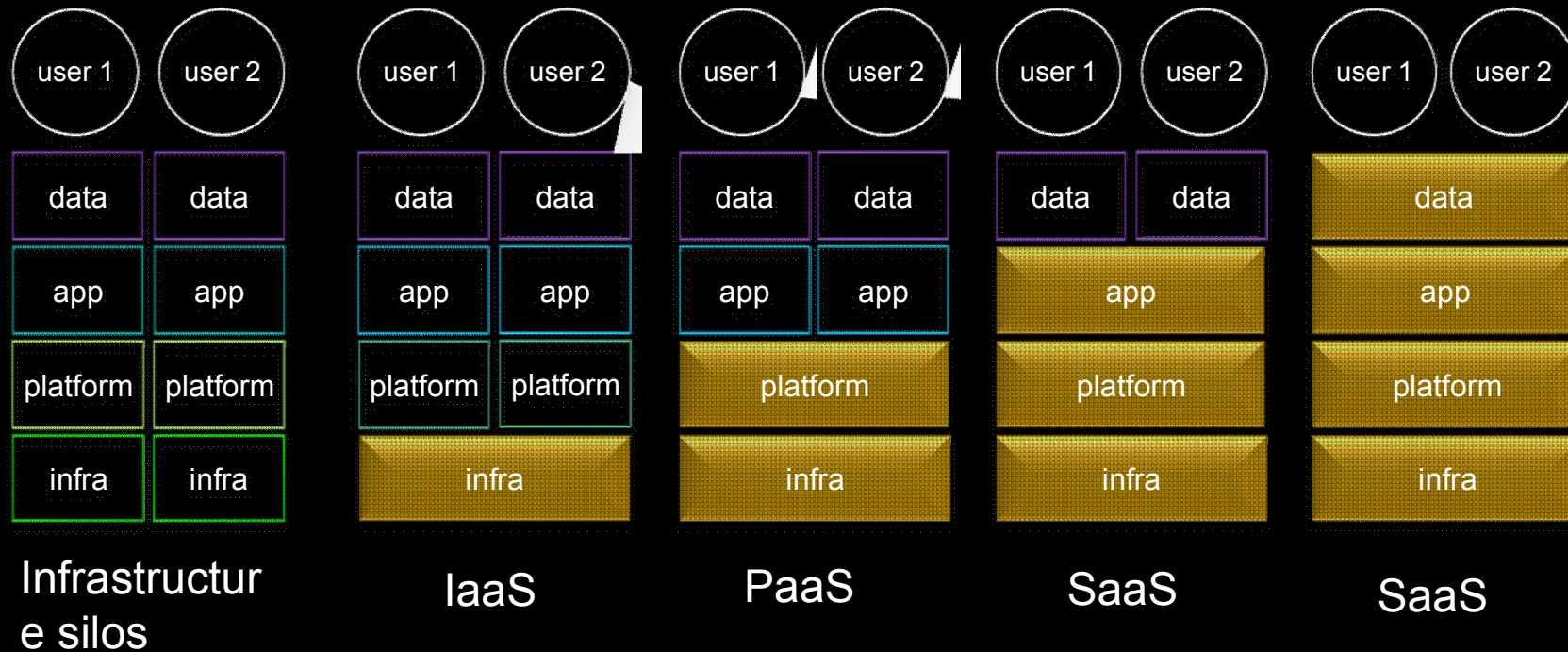
Technology silos are under pressure



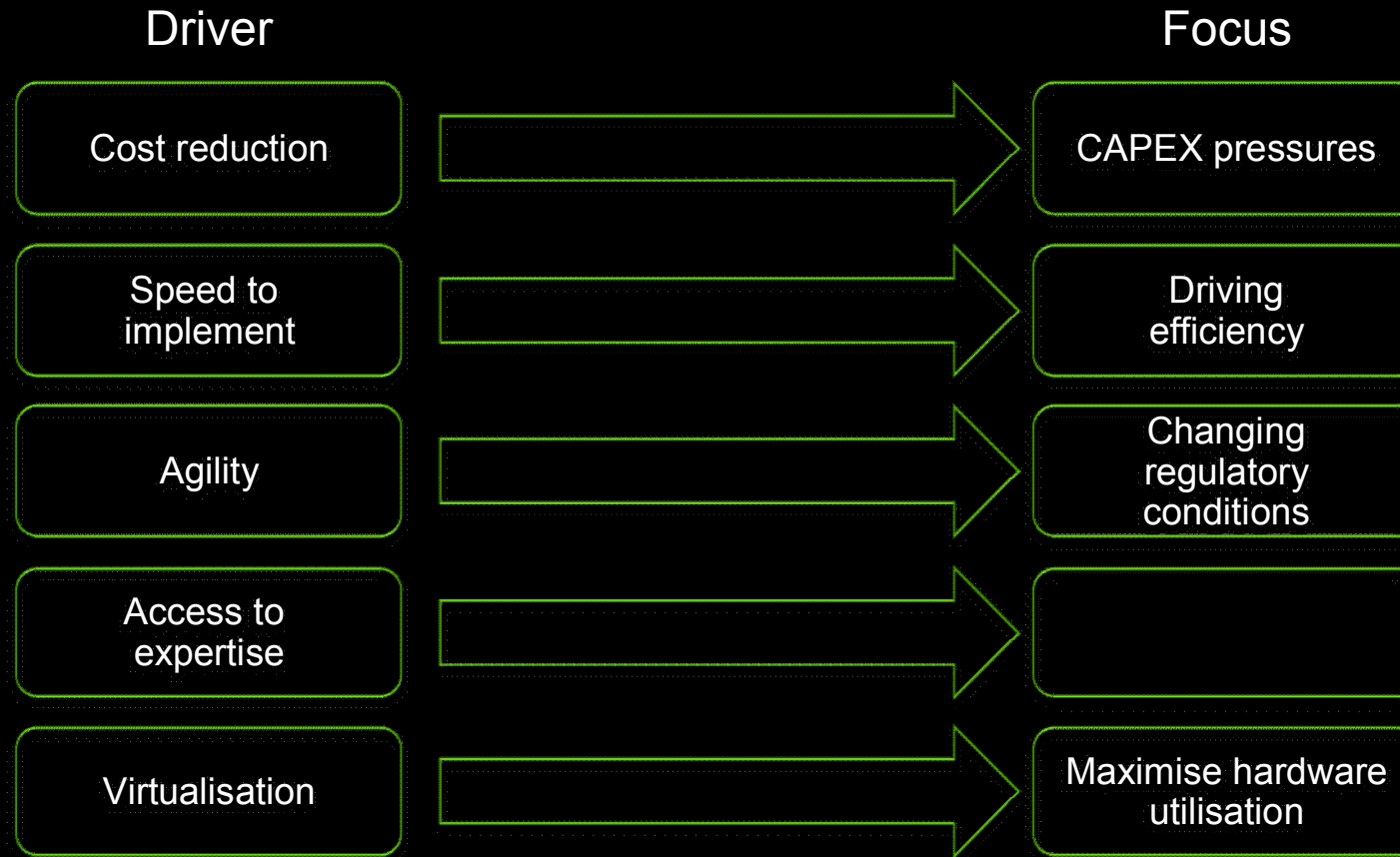
resulting in a paradigm
shift in the way IT is
consumed



Cloud infrastructure is shared and standardised



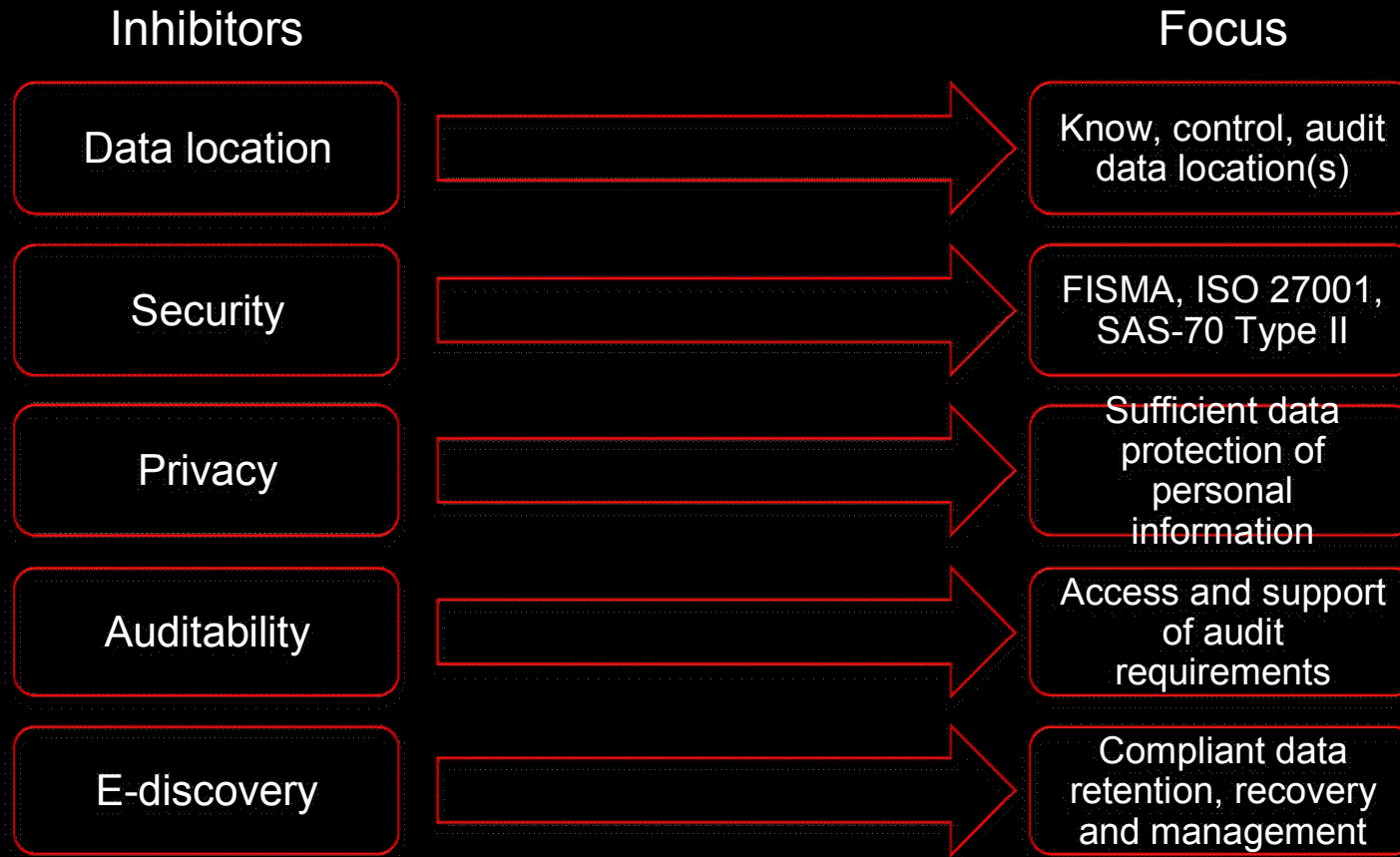
Top drivers for public sector



Source: Gartner, Inc. "Who Really Cares About the Cloud? An Industry Perspective" by Jeff Roster, Cynthia Moore, Kristine Pfeiler,



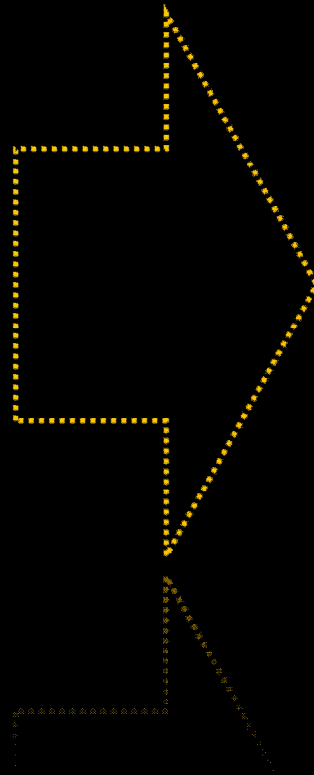
Top inhibitors for Public Sector



Source: Gartner, Inc "Criteria for Government to Evaluate Cloud Computing" by Andrea Di Maio, Massimiliano Claps



So, a
fundamental



shift

Is it worth it?

Today,
governments and public
sector bodies are
consuming cloud
services

Public Sector clouds



Seventh Framework Programme



Government Cloud Computing Initiative – G-Cloud & G-aS clouds



US Department of Energy (DOE) – Magellan



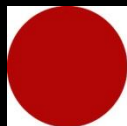
NASA – Nebula cloud



General Services Administration (GSA) – apps.gov cloud



Federal Chief Information Officers Council



The Digital Japan Creation Project – The Kasumigaseki cloud

*“[UK] Government to set up own cloud computing system. UK cloud computing strategy could save up to **£3.2bn** a year [from a £16bn annual budget], says Cabinet Office”*

*Charles Arthur, technology editor
guardian.co.uk, Wednesday 27
January 2010*



“In September 2009, we [Obama Administration] announced the Federal Government’s Cloud Computing Initiative”

- ✓ recovery.gov redirecting \$1m per year in IT savings to improving fraud and waste detection due to cloud migration
- ✓ City of Los Angeles is anticipating savings of \$5.5 million over five years from migrating email and productivity tools to the cloud

Vivek Kundra Federal Chief Information Officer, Obama Administration, State of Public Sector Cloud Computing , May 20, 2010



SchoolCloud

“Hudson Falls Central School District in New York has implemented HP SchoolCloud. We went from managing 1,400 computers to 10 servers. We're seeing a huge savings from help desk support, maintenance time and costs.”

*Greg Partch, Director of Information Technology,
Hudson Falls Central School District, New York*



Army Experience Center

- ✓ Initial bids from traditional vendors ranged from \$500k to \$1m to implement
- ✓ The Army chose cloud-based CRM at a annual cost of \$54k
- ✓ This resulted in faster upgrades, dramatically reduced hardware and IT staff costs

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Rapid Access Computing Environment

- ✓ DISA created RACE secure private cloud in 2008
- ✓ RACE provides on-demand server space for development teams across public sector
- ✓ Self-service portal to provision computing resources
- ✓ Guaranteed to be secure to DoD standards
- ✓ Provisioning improved from six weeks to 24 hours
- ✓ Set up with an approved Government credit card

Vivek Kundra Federal Chief Information Officer, Obama Administration, State of Public Sector Cloud Computing , May 20, 2010



The journey requires...

- ✓ A structured, service lifecycle approach
- ✓ Capability model and roadmap that addresses people, process and technology
- ✓ A flexible design you can evolve for tomorrow's cloud model
- ✓ Solution architecture blueprints that provide customization to protect key investments already made
- ✓ Solid Implementation plan built on real life projects



